

Title (en)  
SELF-FOLDING POLYMER MICROPARTICLES

Title (de)  
SELBSTFALTENDE POLYMER-MIKROTEILCHEN

Title (fr)  
MICROPARTICULES POLYMERES AUTO-REPLIEES

Publication  
**EP 1560611 A1 20050810 (EN)**

Application  
**EP 03781910 A 20031104**

Priority  

- US 0336066 W 20031104
- US 42409202 P 20021105

Abstract (en)  
[origin: WO2004041317A1] A method for forming three-dimensional polymeric particulate microstructures through self-folding of thin-film microparticles. Self-folding of two-dimensional polymeric precursors produces various three-dimensional particulate microstructures. Dumpling-like microstructures with oil cores and polymer coats are prepared by an interfacial-tension driven self-folding method. Roll-like and bowl-shaped hydrogel microstructures are fabricated by self-folding induced by differential volume shrinkage. Curled microstructures are produced by self-folding that is the result of a two-polymer or bilayer method wherein one of the polymers is a volume changeable polymer.

IPC 1-7  
**A61L 27/00; B05D 1/38; B05D 3/10; B05D 3/12; B05D 7/04**

IPC 8 full level  
**A61K 9/00** (2006.01); **A61K 9/14** (2006.01); **A61K 9/16** (2006.01); **A61K 47/48** (2006.01); **B01J 13/04** (2006.01); **B29B 9/00** (2006.01)

CPC (source: EP US)  
**A61K 9/0097** (2013.01 - EP US); **A61K 9/1635** (2013.01 - EP US); **A61K 9/1647** (2013.01 - EP US); **A61K 9/1682** (2013.01 - EP US);  
**A61K 9/1694** (2013.01 - EP US); **A61K 47/6927** (2017.07 - EP US); **B01J 13/04** (2013.01 - EP US)

Citation (search report)  
See references of WO 2004041317A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004041317 A1 20040521**; AU 2003287705 A1 20040607; CA 2504842 A1 20040521; EP 1560611 A1 20050810;  
US 2004191321 A1 20040930; US 7364675 B2 20080429

DOCDB simple family (application)  
**US 0336066 W 20031104**; AU 2003287705 A 20031104; CA 2504842 A 20031104; EP 03781910 A 20031104; US 70071503 A 20031104